Gender-Specific Aspects of Transforming Fish Value Chains in Zambia

Masterarbeit

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vorgelegt von

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6. Summary and conclusions

This thesis investigated the gender-specific aspects of the transformation of the fish value chain and its consequences for households in rural Zambia. Therefore, three regressions were performed to examine the motivational and restricting factors of household fish production, identify the role of fish for food security and investigate influences on intra-household distribution of fish while taking gender-specific aspects into account. Besides the comparison of male and female headed households, two Zambian areas of which one is located directly at Lake Mweru were compared in the regressions. In addition to the regressions, key informant interviews and stakeholder discussions were performed on site. As expected, the first regression shows that area is one of the main determinants of household engagement in the fish value chain. In line with the descriptive results, the regression further shows that in the area close to the lake fish production is more common amongst male headed households. This reflects the gendered division of labor which is typical for fish value chains: Whilst women engage in the post-harvest sector as processors or traders, fishing itself is considered male domain. Moreover, the findings suggest that fishing is likely to be integrated in a multi-occupational livelihood portfolio due to a number of benefits and synergetic effects. The common perception of fishers belonging to the poorest of the poor cannot be confirmed. In contrast, fish production in the study area is associated with higher income levels suggesting that fishing is not an activity of last resort. The second regression implies that food security is highly gender-related, since education of the wife and decisions about livestock taken by a female increase food security. In addition to income and area also livestock holdings improve food security, but the production of fish does not. This indicates that fishing is more likely to be undertaken as an income generating

activity and not for subsistence. Furthermore, the results imply that male and female headed households pursue different strategies in order to combat food insecurity: Women are more likely to rely on own food production as a source of subsistence while for men income generation is the primary objective of those activities.

Also the third regression incorporates gender effects since a more equal distribution of fish within the household is caused if females allocate the food. This is consistent with the common preference of women to care for the whole family's wellbeing and protect children in particular. However, in contrast to other empirical studies, share of assets controlled by a female as a measure of bargaining power does not influence the intra-household fish allocation significantly. Household size and dependency ratio increase intra-household equality of fish consumption suggesting that children bargain for bigger shares of food in groups.

These findings imply that empowering females in fish value chains is highly advantageous because of their role in ensuring food security and their interest in the wellbeing of the family. Furthermore, integrating fishing into multi-occupational livelihood portfolios creates diverse advantages and enhances household resilience against and ability to cope with changes of the fishery sector.

So far, there has been little research on gender-specific factors affecting participation in occupations in the fish value chain other than fishing itself such as trade as an activity of last resort, especially for women. Besides, because aquaculture is the main driver for fish production growth, evaluating determinants of fish farming separately can contribute to assess the potential of aquaculture in the context of the increasing demand for fish. To gain further knowledge about the transition of the fish value chain, panel data is required. By evaluating fishing effort over time adaptations and coping mechanisms of households to the changes in the fish value chain can be detected.

Besides, the analysis of the thesis at hand is based on regression models only, but does not take behavioral theories into account to analyze possible reactions of agents to changes in the fish supply chain. Further research in terms of modeling human behavior to study the interactions between fishers and water resources is needed for a full understanding of the link between humans and social-ecological systems (Schlüter et al. 2017).

Alternatively to the FCS, another measure for food security such as the Body Mass Index could improve the analysis by taking long-term nutrition into account. Furthermore, an

additional measure for individual food security would enable the comparison of food security on the household level with individual household members to link the analysis of food security and intra-household allocation of food.
With respect to the examination of intra-household allocation of fish it could be subject to future research to include more factors related to the transition of the fishery sector into the model such as limited availability of fish.

In conclusion, this master thesis gives important insights into motivational factors and constraints of engagement in fish value chains as well as the benefits of fishing activities for food security and intra-household allocation of fish. Based on the obtained results, promoting female empowerment as well as integrating fishing into multi-livelihood portfolios are important steps when transforming fish value chains in order to cope with the ongoing changes and protect the numerous and essential benefits that many rural Zambians receive through the fishery sector.